

Serial No. 10/672,083
60130-1896; 02MRA0122

AMENDMENT

IN THE CLAIMS:

1. (CURRENTLY AMENDED) An obstruction detector comprising:
a light sensor having a plurality of imaging elements; and
a circuit that analyzes a distribution of light received by the light sensor, wherein the distribution of light defines a histogram of gray levels of the plurality of imaging elements, the circuit compares the histogram of gray levels of thea distribution of the light received by the sensor to a reference distribution histogram, and the circuit updates the reference distribution histogram.
2. (ORIGINAL) The detector in claim 1, wherein the light sensor is a charge-coupled device sensor.
3. (CANCELLED)
4. (CURRENTLY AMENDED) The detector in claim 1, further including a lens in a path of the distribution of light received by the light sensor.
5. (CANCELLED)
6. (PREVIOUSLY PRESENTED) The detector in claim 1, further including a light source to illuminate an area proximate to the light sensor.
7. (ORIGINAL) The detector in claim 6, whercin the light source is an infrared light source.
8. (CURRENTLY AMENDED) The detector in claim 7, wherein the light source is activated when the distribution of light received by the light sensor is below a first threshold value.

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9. (CURRENTLY AMENDED) The detector in claim 8, wherein the light source is deactivated when the distribution of light received by the light sensor is above a second threshold value.
10. (CURRENTLY AMENDED) An automobile vehicle part comprising:
an opening;
an openable member in the opening and moveable to a closing line, wherein the openable member contacts the closing line when the openable member is in a closed position; and
a detector including a light sensor having a plurality of imaging elements and a circuit that analyzes a distribution of light received by the light sensor, wherein the distribution of light defines a histogram of gray levels of the plurality of imaging elements, the circuit compares the histogram of gray levels of thea distribution of the light received by the light sensor to a reference ~~distribution-histogram~~, and the circuit updates the reference distributionhistogram.
11. (CURRENTLY AMENDED) The part in claim 10, wherein the light sensor detects ~~approximately an arca~~ approximately surrounding the closing line.
12. (CURRENTLY AMENDED) A method of detecting an obstruction in a path of an openable member comprising the steps of:
detccting light along a closing line of the openable member with a light sensor to form a distribution of light-distribution, wherein the light sensor has a plurality of imaging elements and the distribution of light defines a histogram of gray levels of the plurality of imaging elements;
comparing the histogram of gray levels of the distribution of light distribution along the closing line with a reference ~~distribution~~histogram;
indicating an obstruction when the step of comparing ~~the light~~ indicates thean obstruction is in the path of the openable member; and
updating the reference ~~distribution~~histogram.
13. (CANCELLED)

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14. (CURRENTLY AMENDED) The method in claim 12, wherein the step of detecting the light includes the steps of integrating and detecting an ambient brightness, and the step of integrating occurs over a period ~~dependent~~ that depends on a level of the ambient brightness detected.

15. (PREVIOUSLY PRESENTED) The method in claim 14, wherein the step of detecting the ambient brightness comprises measuring the light received on the light sensor.

16. (PREVIOUSLY PRESENTED) The method in claim 12, further comprising the step of activating a light source when the light received by the light sensor is below a first threshold value.

17. (PREVIOUSLY PRESENTED) The method in claim 16, further comprising the step of deactivating the light source when the light received by the light sensor is above a second threshold value.

18. (CURRENTLY AMENDED) The detector of claim 1, wherein the reference ~~distribution~~ histogram is a reference histogram of ~~grey~~ gray levels.

19. (CURRENTLY AMENDED) The part of claim 10, wherein the reference histogram distribution is a reference histogram of ~~grey~~ gray levels.

20. (CURRENTLY AMENDED) The method of claim 12, wherein the ~~reference~~ histogram distribution is a reference histogram of ~~grey~~ gray levels.